

Data Structures

Practical 8

Objective:

WAP to Implement Linear Search algorithm.

Code:

```
#include <iostream>

using namespace std;

int main()
{
    int n,s,flag=0;

    cout << "Enter No. of Elements: ";

    cin >> n;

    int arr[n];

    cout << "Enter Elements: ";

    for (int i = 0; i < n;i++){
        cin>>arr[i];
    }

    cout << "Enter Element to be searched: ";

    cin>>s;

    for (int i = 0; i < n;i++){
        if (arr[i] == s){
```

```
flag = i+1;  
break;
```

```
}
```

```
else
```

```
flag=0;
```

```
}
```

```
if (flag > 0){
```

```
    cout << "Position of element: "<<flag<<endl;
```

```
}
```

```
else{
```

```
    cout << "Element not found";
```


```
}
```

```
return 0;
```

```
}
```

Output:

Element found:

 C:\Users\asus\OneDrive\Desktop\Second Semester\DS Practicals\Linear search P8.exe

Enter No. of Elements: 4

Enter Elements: 45 52 64 78

Enter Element to be searched: 52

Position of element: 2

Process exited after 27.51 seconds with return value 0
Press any key to continue . . .

Element not found:

```

C:\Users\user\Desktop\Second Semester\DS Practical\Linear search PB.c
Enter No. of Elements: 3
Enter Element: 54
78
66
Enter Element to be searched: 100
Element not found!
Process exited after 28.47 seconds with return value 0
Press any key to continue . . .
```